

104 APR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 April 2004 (22.04.2004)

PCT

(10) International Publication Number
WO 2004/033511 A1

(51) International Patent Classification⁷: **C08F 283/00**,
290/14, G02B 1/04

Chuo-ku, Tokyo 104-8410 (JP). **TANABE, Takayoshi**
[JP/JP]; 5-6-10, Tsukiji Chuo-ku, Tokyo 104-8410 (JP).

(21) International Application Number:
PCT/NL2003/000679

(74) Agent: **HOOGENDAM, G., C.**; DSM Intellectual Prop-
erty, P.O. Box 9, NL-6160 MA Geleen (NL).

(22) International Filing Date: 3 October 2003 (03.10.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
JP2002-294726 8 October 2002 (08.10.2002) JP

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicants (*for all designated States except US*): **DSM**
IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-6411 TE
Heerlen (NL). **JSR CORPORATION** [JP/JP]; 5-6-10,
Tsukiji, Chuo-ku, Tokyo 104-8410 (JP). **JAPAN FINE**
COATINGS CO., LTD. [JP/JP]; 5-6-10, Tsukiji Chuo-ku,
Tokyo 104-8410 (JP).

Published:

— with international search report

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **FUTAMI, Satoshi**
[JP/JP]; 5-6-10, Tsukiji Chuo-ku, Tokyo 104-8410 (JP).
ITAI, Shingo [JP/JP]; 6-6-10, Tsukiji Chuo-ku, Tokyo
104-8410 (JP). **TASAKE, Hideaki** [JP/JP]; 5-6-10, Tsukiji

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: **PHOTOCURABLE RESIN COMPOSITION AND OPTICAL MATERIAL**

(57) Abstract: To provide a photocurable liquid resin composition that can produce cured products exhibiting a high refractive index, good shape restorability, and superior adhesion to substrates. The photocurable resin composition comprises (A) 20-80 wt % of a urethane (meth) acrylate obtained by reacting a polyether polyol having an alkyleneoxy structure in the molecule, an organic polyisocyanate compound, and a (meth) acrylate containing a hydroxyl group, (B) 10-70 wt % of a monofunctional ethylenically unsaturated compound, (C) 5-25 wt % of a (meth) acrylate monomer having four or more functional groups, and (D) 0.1-10 wt % of a photoinitiator. Cured products are useful for forming an optical part such as a lens of a lens sheet or a back light using the lens sheet.



WO 2004/033511 A1